



## Chapter 9—How to Report Using the XML Schema

**NOTE: IF YOU ARE A RETURNING REPORTER CHANGING THE AWARD ID, ORDER #, OR DUNS NUMBER ON A REPORT FILED IN THE LAST REPORTING PERIOD, SEE CHAPTER 10 FOR INSTRUCTIONS.**

### In this chapter:

- *How to Download the XML Schema*
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- *XML Structures for Federal Contracts, Grants, and Loans*
- *How to Upload an XML*
- *How to Update an XML*

Organizations with sufficient technical experience may choose to submit reports using an XML file. The report must match this schema for successful reporting. If the XML schema is modified, the report will not be accepted. If reporting for multiple DUNS numbers or multiple award numbers, you must create a separate XML file for each award.

### How to Download the XML schema

- Download the XML schema from the home page or the Downloads page.
- On the home page click “Create a Report” in the left sidebar.
- From the Downloads page
  - Click “Download XML Templates” to begin downloading the Zip file. We recommend saving the Zip file to your desktop or a preferred location on your hard drive as opposed to simply opening the file.



When the XML schema files are extracted from the Zip file, you will see the following six type files:

- Exchange
  - The RecoveryRR-xc.xsd file has the basic XML structure for federal contracts or grants and loans. Based upon the award type, the basic requirements of the XML structure will vary. There are three possible models:
    - Prime Recipient—the report is submitted by the prime recipient organization for the prime award only.
    - Prime Service Provider Model—the prime recipient organization enters all reporting data associated with its prime award and all sub-awards within one report. Recipients of federal contracts must report sub-recipient data using this model.
    - Sub-recipient —the report is submitted by the sub-recipient organization for sub-award only, as delegated by the prime recipient of a grant or loan.

**Prime recipients of federal contracts must report all data for their sub-recipients. They are not allowed to delegate that responsibility to their sub-recipients.**

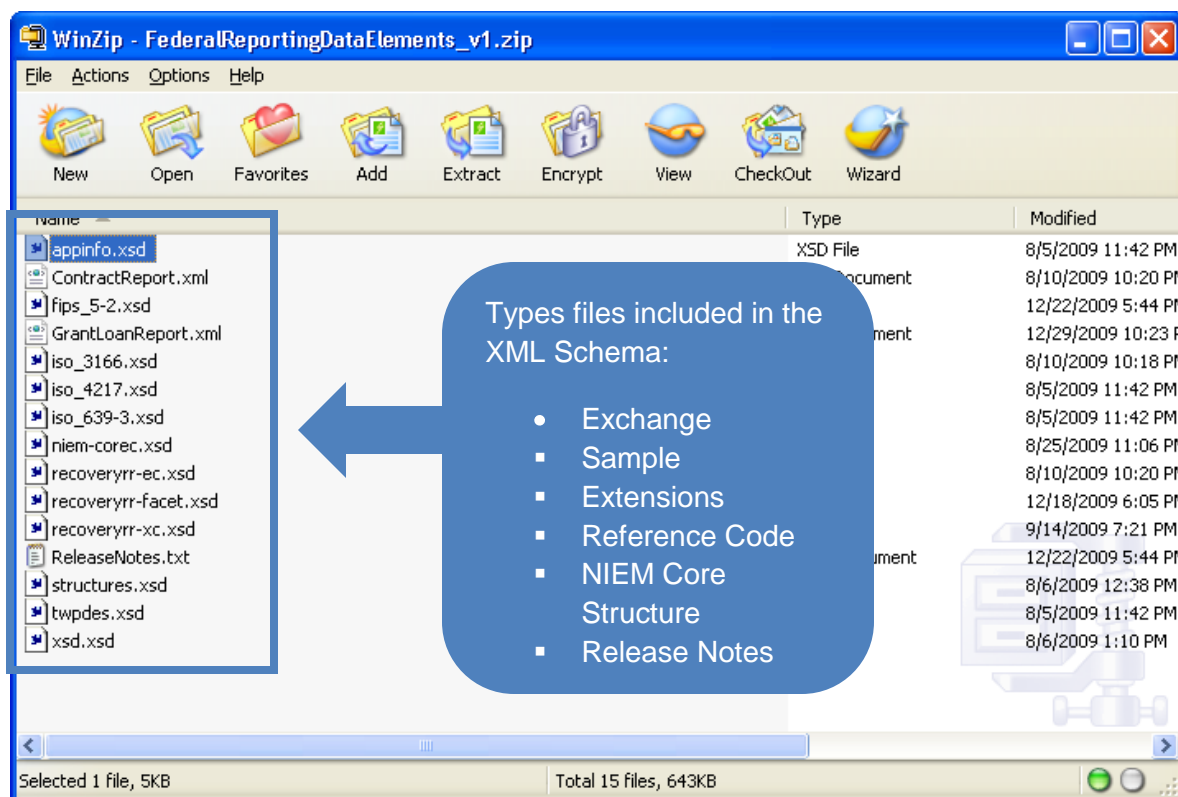
- Extensions
  - The RecoveryRR-ec.xsd file that has the detailed object types associated with the XML file structure for federal contract and grant/loan awards.
    - For federal contract awards, the following is required:
      - Contract Award Category
      - Prime Recipient DUNS Number
      - Prime Award Number
      - Order Number is option
    - For Grant and Loan Awards, the following is required
      - Contract Award Category
      - Prime Recipient DUNS Number
      - Prime Award Number
- Sample Files
  - Contains two sample .xml files. One for a federal contract reporting (ContractReport.xml) and one for grant or loan reporting (GrantLoan.xml). Use these sample reports as a guide to create and submit your report.
- Reference Codes
  - Recoveryrr-facet.xsd -- a large file that includes key reference codes required for reporting. Reference data, as defined in the Data Dictionary, includes such items as Agency Code (Funding Agency Code or Awarding Agency Code), Program Source (TAS), and Activity Code (as derived from NAICS or NTEE-NPC). FederalReporting.gov will validate reference data and will obtain updated reference data as needed to support recipient reporting.



**NOTE:** Two reference data types are not included in this portion of the schema because the files are either very large or subject to intermittent change/update by the government.

Data elements such as Program Source, Activity Code, CFDA, and Government Contracting Office Code should appear on your award document. If you cannot find the appropriate information on your award document, contact your awarding agency

- NIEM Core Structure
  - NIEM folder -- The XML schema is designed to support NIEM 2.0 structures. A number of the XML data types in the ARRA report schema are based on data types defined in the NIEM core information model as documented in the niem-corec.xsd file. Other information model elements are based upon established data standards—for example, FIPS 5-2 (version 2.0) for State Codes (see fips\_5-2.xsd) and ISO 3166 CountryAlpha2CodeSimpleType (see iso\_3166.xsd).
- Release Notes
  - ReleaseNotes.txt file displays changes incorporated in this version of the XML schema. Should the data model and data dictionary associated with reporting change and impact the XML schema, a new version of the XML schema may be published; FederalReporting.gov will post the new XML schema Zip file.



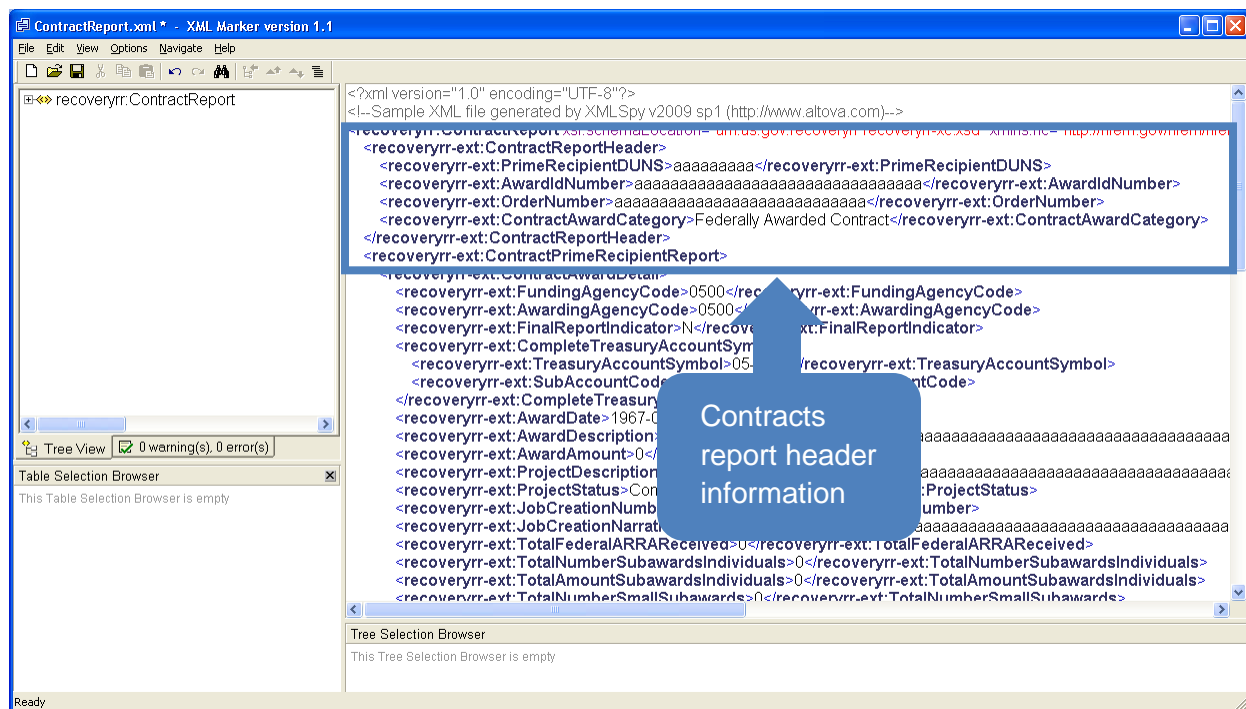


## XML Structure for Federal Contract Awards

The basic XML file structure required for the federal contract awards includes the following:

- ContractReportHeader – required for prime recipients and prime service providers
- ContractPrimeRecipientReport – required for prime recipients and prime service providers
- SubRecipientReport – required for prime service providers.

All submitted XML files must include the ContractReportHeader. The Sub-recipientReport provides for the inclusion of multiple sub-recipients associated with an award.



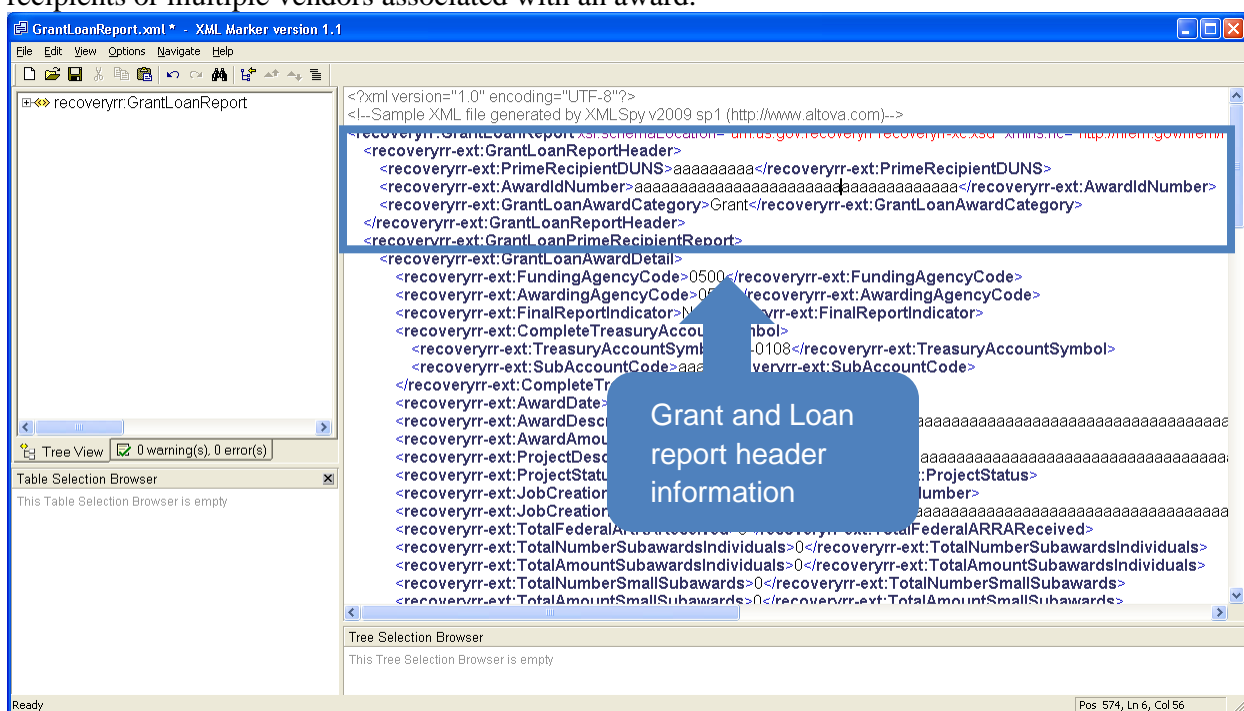


## XML Structure for Federal Grants and Loans

The basic XML file structure required for the Grants and Loans award type includes the following:

- GrantLoanReportHeader – required for prime recipients, prime service providers, and sub-recipients
- GrantLoanPrimeRecipientReport – required for prime recipients and prime service providers
- GrantLoanSubRecipientReport -- required for prime service provides and sub-recipients
- Vendor -- Optional

All submitted XML files must include the GrantLoanReportHeader object. The GrantLoanSubRecipientReport object and the Vendor object support the inclusion of multiple sub-recipients or multiple vendors associated with an award.



If an object type does not apply to your submission, you can choose to set the data fields associated with that object as "nil" or remove the data fields from your XML report.



## Validating your XML structure

Prior to uploading your report, we strongly suggest using the Validation Utility to validate structure and business rules. The Validation Utility is not intended to validate each and every report you intend to submit. Rather, it will allow you to validate a small sample report to help ensure that your file structure is compliant with the required report schema and will be accepted by the system. See Chapter 7 for more information regarding the Validation Utility.

Follow these steps to validate your file:

- Step 1: Log on to FederalReporting.gov
- Step 2: Create your sample Excel or XML of no greater than 200 megabytes.
- Step 3: Click “Validate File” in the left sidebar on the FederalReporting.gov home page.
- Step 4: On the Validate File page, select the required fields for Award Type and Recipient Type.
- Step 5: Browse and select the file to validate.
- Step 6: Click “Validate File.”
- Step 7: Confirmation page confirms that your file has uploaded.

The screenshot shows the 'Validate File' page on FederalReporting.gov. The page has a header with the date 'Friday, September 11, 2009' and a navigation bar with links: Home, About, Downloads, FAQ, Help. The main content area is titled 'Validate File' and contains 'Validation Instructions' and a 6-step process. The instructions state: 'Welcome to the Validation Utility. This Validation Utility allows a Recipient organization user to test the basic structure and certain business rules associated with a sample file. The Validation Utility is not intended to validate each and every report you intend to submit. Rather, the Validation Utility will allow you to validate a small sample report to help ensure that your report file structure is compliant with the required report schema and will be accepted by the system. The validation utility process consists of the following 6 steps: 1. Verify that your sample Excel or XML file is no greater than 200 megabytes. 2. Select the appropriate radio buttons (Award Type and Recipient Type). 3. Browse and select a file to validate. 4. Select the "Validate File" button to submit your file validation request. 5. Confirmation page confirms that your file has uploaded. 6. Within 1 to 24 hours, you will receive an email with validation results. The results can be used by your organization to understand any issues which will require correction in the submitted report file. Applying the results to all of your future report submissions helps to ensure continued compliance with the report schema and acceptance by the system.'

On the left sidebar, there are sections for 'Hello, Recipient User (Recipient User)' with a 'Logoff' button, 'Current Reporting Cycle' with 'Initial Submission' details, 'Create / Upload ARRA Reports' with 'Create Report', 'Upload Report', and 'Validate File' buttons, 'Quick Links' for 'My Reports' and 'Administration', and 'Download Templates' for 'Microsoft Excel' and 'XML Schema'. There is also a 'LIVE HELP' chat button.

Three blue callout boxes with arrows point to specific form elements: 'Select Award Type' points to the 'Award Type' section with radio buttons for 'Federally Awarded Contract', 'Grant', and 'Loan'; 'Select Recipient Type' points to the 'Recipient Type' section with radio buttons for 'Prime Recipient [Prime Only]', 'Prime Recipient [Prime reporting for self and Sub(s)]', and 'Sub Recipient [Sub Only]'; and 'Select File' points to the 'File to Validate' section with a 'Browse...' button.

The footer contains links for 'Accessibility', 'Copyright Information', and 'Privacy Policy', along with various partner logos including USA.gov, GobiernoUSA.gov, USA.gov, GRANTS.GOV, FedBizOpps.gov, GovLoans.gov, and Benefits.gov.



## How to Upload the Completed XML file

Follow the steps below to upload the completed XML file:

- Log into FederalReporting.gov
- Click “Upload Report” in the left sidebar.
- On the Upload Report Page, select Award Type and Recipient Type
- Browse to select the file to upload – the extension must be .xml
- Enter the FRPIN associated with the DUNS number for which you are reporting
- Click “Upload Report.”

You will receive a Report Submitted Successfully message. On average, processing takes up to 24 hours, depending upon the number of files to be processed across the system.

The screenshot shows the 'Upload ARRA Report File' page on FederalReporting.gov. The page has a header with the site logo and navigation links (Home, About, Downloads, FAQ, Help). On the left is a sidebar with user information, reporting cycle details, report creation/upload options, and quick links. The main content area is titled 'Upload ARRA Report File' and contains four sections: 'Award Type' with radio buttons for 'Federally Awarded Contract', 'Grant', and 'Loan'; 'Recipient Type' with radio buttons for 'Prime Recipient [Prime Only]', 'Prime Recipient [Prime reporting for self and Sub(s)]', and 'Sub Recipient [Sub Only]'; 'File' with a 'Select File to Upload' section and a 'Browse...' button; and 'Submission Acknowledgement' with a text input for 'FRPIN'. Blue callout boxes with arrows point to each of these four sections, labeled 'Select Award Type', 'Select Recipient Type', 'Select File', and 'Enter FRPIN' respectively. At the bottom of the main area are 'Upload Report' and 'Cancel' buttons.

Upon completion of processing, you will receive an email indicating if your XML file has been accepted as a valid submission or if there are validation errors associated with the XML file. If there are validation errors, you will receive an email describing the errors. Review the file and make all necessary corrections. **Errors must be corrected and a new file uploaded. An XML file with errors is not considered a valid submission.**



## **Making updates in report submission via XML**

If a recipient or federal agency comments on a submitted report, the organization that submitted that report can review those comments and make any needed updates to the submitted report. You can choose to make changes to reports via any of the three report submission methods: online, Excel file, or XML. If a change is simple and applies to one data field in one report section, you may choose to simply make that change online. However, where multiple changes are required, you may decide to make the change in the XML file and upload a new XML file. The new XML file is uploaded and submitted using the same process described above.